RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767 TDD 401-831-5508

25 June 1997

Mr. Philip Otis, P.E., Remedial Project Manager
US Department of the Navy, Northern Division
Code 18, Mail Stop #82
10 Industrial Highway
Lester, PA 19113-2090

RE: Addendum to the Sites 03 and 09 Phase III Work Plan
Offshore Geotechnical Sampling and Confirmation Study at Site 09
NCBC Davisville, Rhode Island
Submitted 14 May 1997, Dated 12 May 1997

Dear Mr. Otis;

As noted in RIDEM's 19 June 1997 comments, on the above referenced workplan, it was requested that additional borings in Allen Harbor be advanced to bedrock to validate the model used to predict fate and transport of COCs. In addition, these borings can provide information regarding possible plume migration from Calf Pasture Point. As noted in comment # 2, RIDEM is suggesting possible locations where additional borings should be placed.

With respect to Calf Pasture Point, the VOC plume has not been fully delineated, particularly on the south western and western sides (i.e. in the Allen Harbor channel and Allen Harbor itself). The shallow groundwater plume, as shown in Figure 1-19 of the Draft Final Feasibility Study, indicates that the most downgradient well within the plume MW07-21S has 1481 ug/l of VOC in it. Therefore, an additional downgradient monitoring well is necessary to further define the edge of the plume, determine if the plume is discharging into the inlet of Allen Harbor, and for continued monitoring of the downgradient VOC levels.

The bedrock groundwater plume, as shown in Figure 1-21 of the Draft Final Feasibility Study, indicates that the bedrock groundwater VOC plume has not been fully delineated. The most downgradient well, MW07-21D, and the western-most well, MW07-25R reveal high levels of VOC (8390 ug/l and 4400 ug/l, respectively). Before a series of monitoring wells can be proposed to monitor potential plume migration, the plume must be delineated. This may need to be done in phases, starting with a minimum of 4 wells along the perimeter (See Figure 1) and, if high levels are still detected in those wells, installing additional wells along the shoreline. If due to physical conditions, a well cannot be located as shown on Figure 1, then the well should be placed immediately offshore. Installing wells along the shoreline may also be necessary to determine if there is any actual or potential impact to surface water in the

Allen Harbor channel or in the harbor itself.

In order to verify the model presented for the Allen Harbor Landfill it is necessary to determine if the hydrogeology within Allen Harbor is contiguous with that under the landfill. Therefore, bedrock topography mapping would be helpful in verifying the model. Similar to the 13 borings proposed along Allen Harbor Landfill (which have been requested to go to bedrock) it is also requested that an additional five to borings be placed along the perimeter of Calf Pasture Point and the Allen Harbor channel as shown in Figure 2. This would provide the Navy with the data necessary to verify the model, but would also further define the bedrock groundwater plume migration toward and into Allen Harbor.

RIDEM looks forward to working with the Navy and EPA on the implementation of this workplan. If you have any questions or require additional information please call me at (401) 277-3872 ext. 7138.

Sincerely,

Richard Gottlieb, P.E.
Principal Sanitary Engineer

Attachment:

cc: W. Angell, DEM OWM
C. Signore, DEM OWM
C. Williams, EPA Region 1
H. Cohen, RIEDC
M. Cohen, ToNK
W. Davis, CSO NCBC
J. Shultz, EA Eng.

letter1.rwg/richg

FIG. 1

● = PROPOSED WELL LOCATION

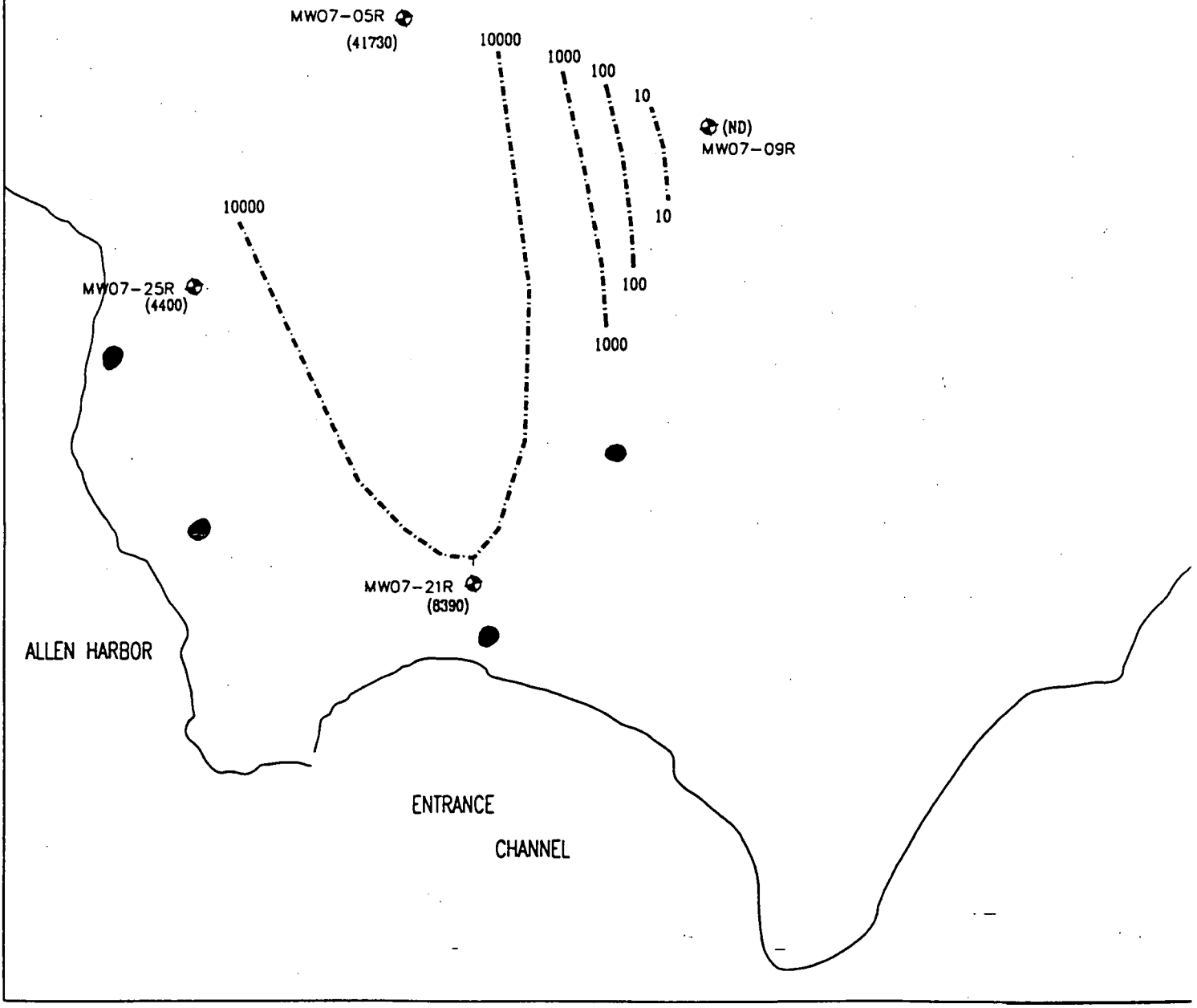
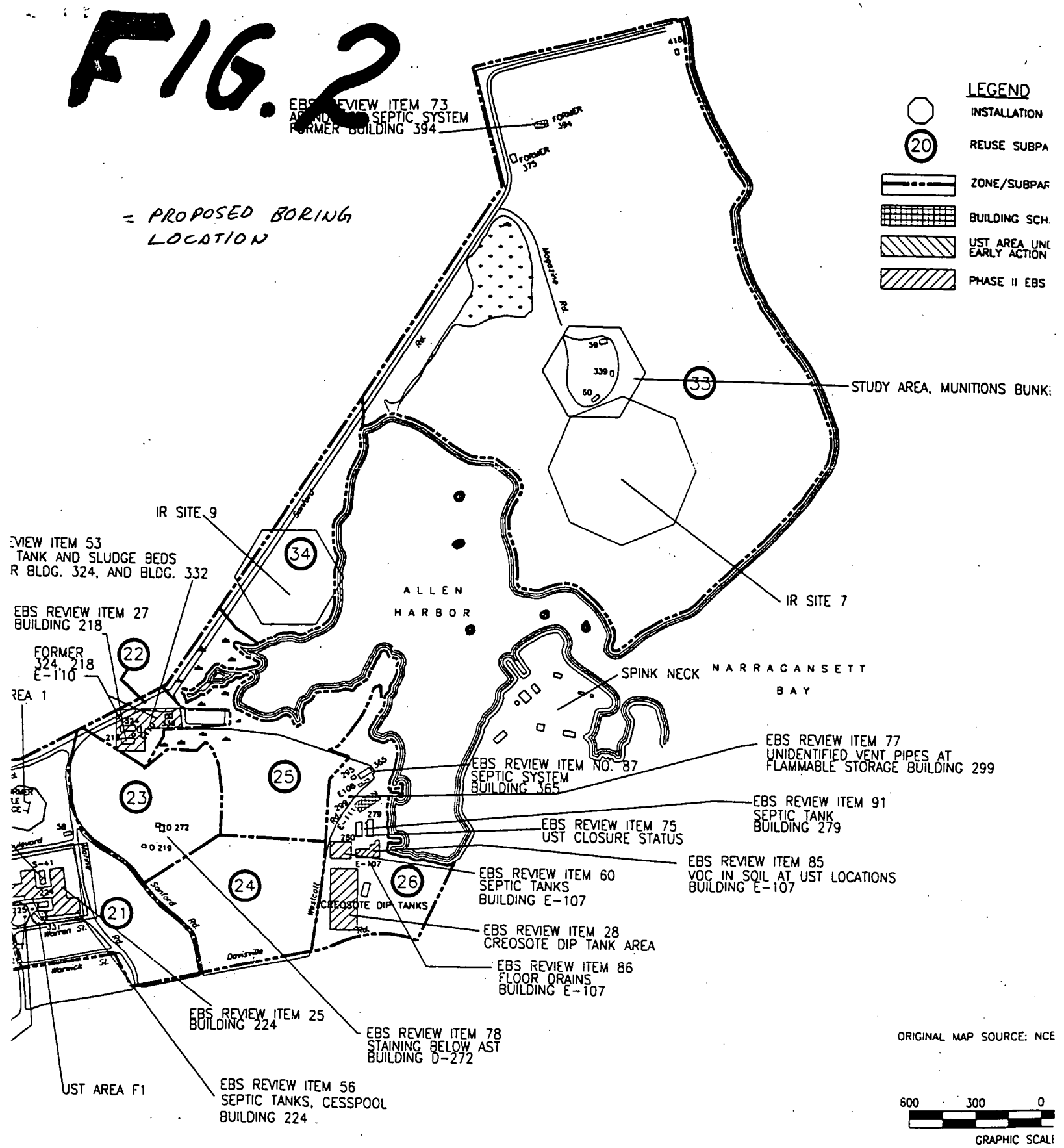


FIG. 2



	DATE	PROJECT NO.		
	11-1-96	29600.60.2290	MAIN CENTER, ZONE 3 EBS REVIEW ITEMS SITE MAP	NCBC, DAVISVILLE ENVIRONMENTAL BASELINE SU FINAL PHASE II EBS RE DAVISVILLE, RHODE ISLAND
	SCALE	DRAWING NO.		
	AS SHOWN	-		